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AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

CLAIMS

1. (currently amended) A system for in vivo analysis, said system comprising comprising:

agglutinative particles capable of interacting with at least one analyte so as to cause an optical change; and

at least one in vivo imaging system configured for detecting the optical change.

- 2. (original) The system according to claim 1 comprising at least one illumination source.
- 3. (original) The system according to claim 1 comprising at least one chamber, said chamber configured for containing the agglutinative particles and an in vivo sample.
- 4. (original) The system according to claim 3 wherein the sampling chamber is at least partially transparent.
- 5. (original) The system according to claim 3 wherein the imaging system is configured for imaging the chamber.
- 6. (original) The system according to claim 1 wherein the imaging system is configured for imaging a body lumen.

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7. (original) The system according to claim 1 wherein the agglutinative particles include at least one molecule selected from the group consisting of: antibodies, antigens, cells or linkers.

- 8. (original) The system according to claim 3 wherein the at least one analyte is in the in vivo sample.
- 9. (original) The system according to claim 1 wherein the optical change is selected from the group consisting of: a change of color, a change of hue, a change of brightness, a change of intensity, a change of optical density, a change of transparency, a change of light scattering or any combination thereof.
- 10. (original) The system according to claim 1 wherein the in vivo imaging system includes at least a photodiode, a CCD or a CMOS.
- 11. (original) The system according to claim 6 wherein the body lumen is a gastrointestinal tract.
- 12. (original) The system according to claim 1 comprising a transmitter.
- 13. (original) The system according to claim 12 wherein the transmitter is configured for transmitting image data.
- 14. (currently amended) A device for in vivo analysis, said device comprising the system according to claim 1 [[or 12]].
- 15. (original) The device according to claim 14 wherein the device is selected from the group consisting of: needles, stents, endoscopes, catheters or ingestible capsules.
- 16. (original) An ingestible capsule comprising:

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an optical window, said window having immobilized thereto agglutinative particles capable of interacting with at least one analyte so as to cause an optical change;

at least one imaging system configured for detecting at least the optical change; and

- a transmitter configured for transmitting image data to an external receiving system.
- 17. (original) The device according to claim 16 comprising at least one chamber, said chamber configured for containing the agglutinative particles and an in vivo sample.
- 18. (original) A method for in vivo analysis, the method comprising the steps of:

 obtaining a sample from a body lumen;

 combining in vivo the sample with agglutinative particles; and

 detecting at least one optical change in the combined sample.
- 19. (original) The method according to claim 18 wherein the step of detecting at least one optical change includes imaging the combined sample.
- 20. (original) The method according to claim 18 comprising the step of obtaining at least one image of the body lumen.
- 21. (currently amended) The method according to claim 18 [[or 20]] comprising the step of transmitting data to an external receiving unit.